

Brasil 1976

(3°)

29c



NOTE BOOK

75 SHEETS

No. KB-3387

No. KB-3388

TOP OPEN
SIDE OPEN

2407 - ultima no molo.

Bahia - Brasil. 1976
3° softan

Brachyplatystoma

Mura trypanorum Knobell

of trypanorum

in big bands passing

abdomen with tip

stings to touch body

body becoming

red brownish

body becoming

blackish

body becoming

blackish

body becoming

blackish

body becoming

blackish

5591 Island - Island
info 88 & 8

K, MO, NY

May 6, 1976

2408

Atractanthe felata

Mun. Esplanade Km N
of Esplanade city.

Blind bambos growing
in "canocel". Note tips
reddish - low trees forest
quite dense and tangled
but not as much as
"cips" - sandy soil - s[?].

Trees + shrubs : araga
+ murtas ; Mirtaceae.
Impazui : beginning to bloom.
These 3 are very common
in the forest.
Also some but few large
bromeliads -

Forming small matted
clust., leaf sheath
at base or arching over
bending over trees and
rept. Hard to see!

Culm solid with ran-
nas structure. But not
rigid of nodes.

Culm surface below
node on lower part
of plant cylindrical
Upper bracts smooth
culm sheath pointed
until water on base
culm. A little reflexed
or pubescent in young
middle branches -
Blade very narrow, long
reflexed, soon deciduous -
with lig (but not many)

oral ligae - In young
shoots esp. with white
hairs returns, of
edge of sheath overlapping
and standing open -
trigae very near the edge
the blade + ligae or wings
starts separately from
sheath

Node not prominent
(H) with usual range
or look of culm
near node -
One main axis, reflected
base, ~~sheath~~ boats laying it
falling or trigae to let
see the reflected base
One or two usually
swelling on both sides
these one old already

leaf blade narrow or
else said a little shr
on -bush. Narrow
long & small not
very long up to 13 or 14
cm long. Sheath of
leaves thin like.

Old or mature culm,
thin, = yellow
All plant but a few
days in flower!
Flowers arranged
at end of branch
or plant at nodes
long, thick and curved
pseudospathal-

Spath: green when fresh
and long, turning a little
dark or -tint dry color,
more or all? of sheath

of less developed in
pseudospathal-

Leech - d 1) 42 mm; depth 3

length 11 : AA7
11.5 cm

2 told length on
2nd node, well

2 1st branches

1.60

2 internodes: .65 cm, .68

the longest -

dianths: .8 mm - 7,
less than 1 cm -

3 anthers seen. Dark
nolet - 2 stipe? or 3 in

Alt: 120 mm - 110 ~~mm~~

The morning, 150 - afternoon

Roots with ring of air vessels

not sure if n^o

Photo B & W. no 1#53 - (1 to 31)

Ektachin no 1#54 (1 to 23⁺)

FAA: 1 large $\frac{1}{2}$ with sphe-

l with buds, 1: leaves,

1 with roots and culms

Bog: 1 large sphe-

3: 1 - " " (birds)

cul. lvs, general

rhizome collected

tiny flwr. also -

Duplicates

MS, Cefrac, Type, S.I., Kew,

Flinders, Paris, Berlin, Leiden

Pretoria, Tns Tokyo, ed. N.York

Reddish yellow - 20⁺

yellow, bright yellow - 01⁺

dark yellow - 11⁺

blue & greenish - 51⁺

blue, pale blue - E1⁺

2409 - *Roddia*
2410 - *Streptogyne*
2411 - *Olyra steril.*
2412 - *Schrenkia*
2413 *Astrachete.*

Roddia

May 7, 1972

2409

Mun de Espanola.

stone pine Jaqueira

18 Km N. of Espanola city

~~at~~ intersection road with BR101
on right side of road go N.

Alt. 140 m.

Beautiful tall trees fruit
leaves, very dark. on
sandy soil. This is not
common but quite similar
to native liturinae. Very
dark inside. Primary
forest, only few places
~~where~~ trees cut down
but ~~other~~ no weeds seen.

Abundant and common throughout the forest.
in some places forming carpet, ~~the~~ ~~so~~
most plant rather ~~big~~ ~~bright~~ green,
~~or~~ bright green.
Few in one place very tall with many
old, dried inflorescences.
Most of the plant flowering
in one place growing
together with *Oxalis* sp.
and *Streptogyne*.
I think this is the same Roddie I collected
in 1972 in Jaramaquare.

Phot: B. & W. no. 53 for
32° to end. and no. 55
for 1 to -
(all with flash)

Ektachrome: no. #54 for
23° to end (all with
flash.)

FAA: 3 (*H. f.*, *H. s.* ad leafs)

bag 1 -

3:1 : 1 ♂ nifl. - (5 vials)

May 7.

2410

Streptozyme americana

Mr. & Mrs. (see Mrs.)

Alt. 140 m

In dense, dark, primary
forest of sandy soil.
similar to those at
littorance.

In dark holes of forest
corner, more in
smooth slope of 1 creek.
~~Photo~~

Photo B&W, roll # 55, with
or after Robbie (with
plant)

Ektachrome - roll 54. (with
plant to end of roll.
no pen.)

FAA: 2 nials (wif a bag)
Aug. 1 "

Duplicates sent to:

S. I., Kew, Eng., Berlin, Can.
Lantreaux, Petrie, Tokyo, N.Y.C.

May 7 22° W. N. 2411

Olyra sp. ?
Kun. & M.

Alt. 140 m. " 1 grad

+ scars ^{ripened} and very short
but here and there
finely divided clump
with *Rohelia* and in
places with *Stephanomeria*
turns to be Olyra, but
2 panicle inflorescences
per l.

Very striking & of leaf
and plant in zone

fls. l. Those forming
protochrysalis form slender
a large or quite long
leaf complement Stephen
type of delicate, narrow
leaves, and next to
them other of
much larger, and
very symmetrical base leaves
and with you on
each.

FAA only leaves -
no photo

Date: May 7 - Day 10
- seed v. old

May 7

2412

Fernandezia crenularis
(Schrad. ex Sculps.) Hitchc. & Chase
Det M. T. Stiles
M. Anna,

140 m. alt.

Crite worn on pine
forest, + absent on
the edges of tropical
forest.

Endig with Radde

No photo - F.A.A.: 1 male
s. flor. & leafs

K

May 7

2413

Astartea foliolata?

Mun. de Esplanada?, 14 Km.
N of ^(Guajará) Entre Rios, on
road intersecting BR 101
across from Fazenda
Sapoa do Preta

~~W. J. A.~~ Absent on dense
forest of low trees
or tall carnaúba type
Phoenix especially

Photo: few B&W - roll # 55

May 9, 1876

2414

Panam?

Un de Muage', 26 Km S of
Andarai. On road to Muage'
city

Alt. 1050 m

Infrequent on rocks between
moses with water running
over rocks - Head off of
rivers

May 9

2415

Velloziaceae Vellozia

Mn. Mucugé, or road from
Andarai - Mucugé - 29 Km
S of Andarai -

Alt. 1050 m.

Grown in plots of
mountain, (wooded by)
soil sandy and rocky
forming here small
cliffs. Flowers violet
purple color, stamens
& style bright yellow.

FAA. 1 inch leaf 2
1 flower
no Notes

May 9.

2416

Brocchia rupestris, Schrad. ex Schult.
M. de Mucugé - 29 Km
S of Andarai or road
Andarai - Mucugé -

Alt. 1050 m.

seen on rocky and
wavy soil of top
of mountain

FAA. 1 inch leaf and
spadix.

2417

Bryopteris rufescens Schrad. & Schult.

Send me -

leaves top yellow
on sand place &
the others (2416,

2418

Palmse

Syagrus

Mn. de Muangé - 2 Km.

N of Muangé city on road
Muangé - Andare -

Alt. 950 m. - 1050 m.

Abundant all over the
mountain, L forest on
a high mt., on the
top -

Flowers yellow -
Spathodea, Balsis, Ipo and
Field Museum -

2419

Velloziaceae Barbosaria

2 Km N of Muang - on
Road Muang to Andarai'
Alt. 950 m.

Growing on rocks on
near the top of rock
On rocks Organicae
Balanaceae. Calcareous
Few flowers. Flowers
and copper red colors.
Sticky leaves.

F.A.S.: leaves only,
rather small plants

2420

Velloziaceae Vellaya

in k. above Muang
7 K N of Muang
city or road to Andarai'

Alt. ~~1025~~ m.
On lava Andarai-
Muang - come on
flat top of lava.
Flowers blue-violet
narrow leaves, small
plants.

F.A.S. flowers & leaves

2421

Velloziaceae Valley

Alt. 1025 m

Abundant on top of ~~ridges~~
and on ~~ridges~~ slopes ~~the~~
Flowering only in the
part of Andean

on rocky soil and
areas with other
Velloziaceae, Duguetiaceae.

sh - flat but 80-150 m tall +

Flowers large violet blue
(lighter shade than the 2420
& the smaller one)

FAA: large

2422

Duguetiaceae

Mn de Mucuge' - 7 km N
of Mucuge'

Alt - 1025 m

lower on top of ~~ridges~~
with many Velloziaceae.
Leaves fleshy.
Flowers pink - reddish

Digitaceae

2423

Flowers yellow-green
claw malpighia with
whitish - Inflorescences
pendulous - But as
woman as the other one
2422.

Vellgiaceae Vellgiaceae n.s.

Mu Le Muang - 7 km N of
Muang on road to
Andasai

Alt. 1025 m.

lower on rocky top
of river along with
only open Vellgiaceae
& none not collected
no flowers. ~~soil~~
~~soil~~. On rocks
with little sandy soil
Passed flowers - only
try collected -
Fls - : leaves -
leaves & sticky, purple

11/24/19

Panicum cumbucana Rev. !

2425

Panicum leucobaphus
Lst. R. Rohr.

Mu de Muage'

Common on rocky soil of
top of sierra, finding in
small patches under
Velloziaceae & other plants

Panicum rectissimum Mey

May 11

2426

Panicum (small spcl.)

Mu de Mu Andarai - Rio
Correjo Fundo, ± 15 Km
NW of Andarai city
(river, up in the mountain
is a valley, on Serra
do Sinuado).

Alt = 475 m.

Found in rocky soil
near stream I under
other small plants -
PAPK

FAB : 1 nail with
leaves & spcl -
no photo -

May 11

Palm oil

Geonoma berispalhe, Barb. Rodr.
M. de Andarai, Terra
do Sincorá, Rio Correa
Fundos, ca. 15 km N.W.
of Andarai city.

Alt. 475 m.

Growing only at edge
of river, near note-
fall, upstream, in
a small rocky valley
small palm, up to
1.50 m. high. with
flowers (yellow?) and
fruits -

Common name: Yusara
no photo, no sp. -

2427

grained.

M. de Andarai, Terra
do Sincorá, Rio Correa
Fundos, ca. 15 km N.W.
of Andarai city.

(part by old car to the
end of road, then ± 3
hours walking)

Common up in the
slopes and near
river -

Alt. 475 m.

forming thick, big
clumps. on rocky
area - we also saw it

2428

on higher slopes.

On this slope and also on top of other part of Pura & Lins between Andaraí and Muave - we did not see any bamboo or sandalwood trees.

As ~~is~~ there are many sps of Velloziaceae mostly small, reddish, big some of them florists could be taken as a "small bambus"?

Also of very common is a tall, pretty Cypressaceae - still in flower the tree area

also this gramineal land are also several Oxygritese, & some bromelias and many as many beautiful plants almost all in flower.

Velloziaceae alone are more the 6 - at least we collected 5 or 6. But there are were some others & not in flower.

May 11

2429

Otagoniteae.

Mn. de Andarai - terra
de Simorai - no lamas
Fins, co. 15 Km N.W of
Andarai city.

Alt. 475 m

Forij thick clm
on rocks with short
without soil - at
edge of river on
the side creek -
Flowers small, orange
color -
Leaves thick, fleshy -
no pods, no PPA

2431 - Jelone
2432 - glabro-

K, MO, NY, P, LE, B, F, G, W,

May 12

2430

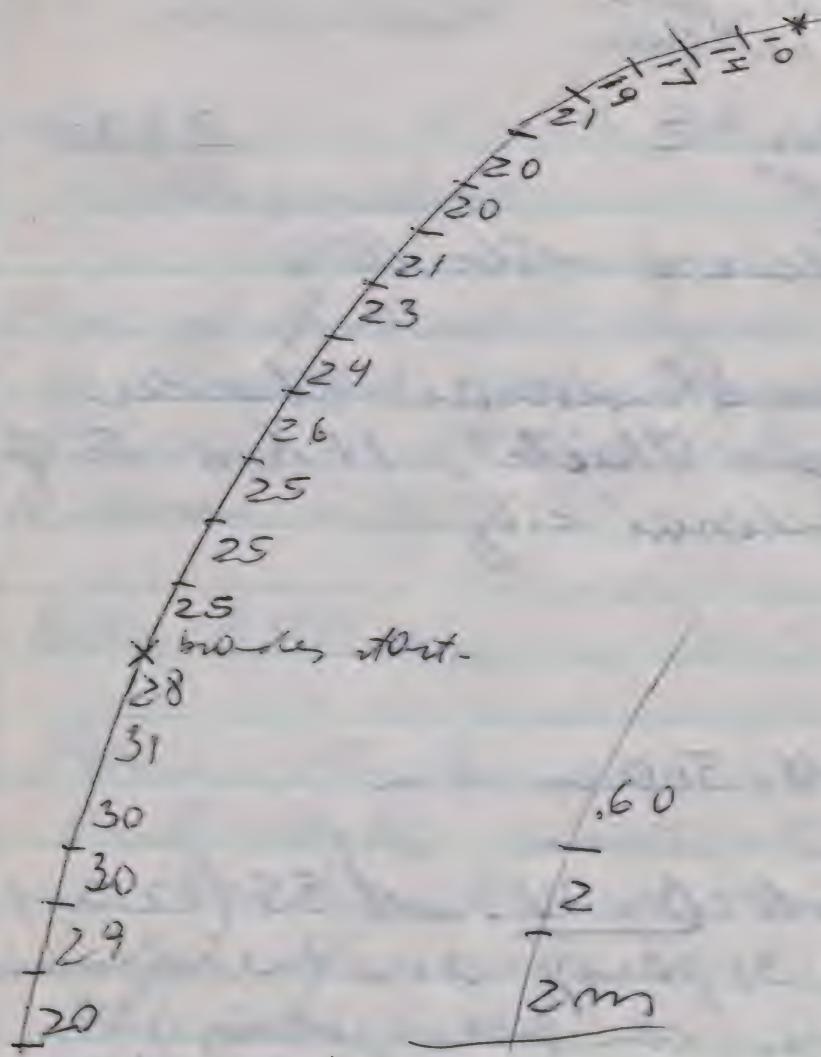
Tecuare reticulata.

Mun de Andarai, strada
para Itaete, 11 Km S of
Andarai city.

Alt. 500 m.s.m.

Photo: B & W - roll 55 (\pm 2-3 of
to 31 pairs) verso Lieno, white
eyes, con filtri polariz.)
per 31 to end. rd roll 57
per 1 to

Ektachrome: Roll 56 (per 1 to 5
pairs verso Lieno, white
eyes e pie) Tecuare per. 6 to end.



up to 4.60 m. one being
very tall.

Stems 1.4 cm - 0.8 cm

culm pieces collected
pannicles collected
rhizome collected
living plant collected

FAA: 4 nals:

leaves from tops; leaves
per regular branch comple-
ment; bud complement;
culm pieces.

Abundant in the
area and found
in the Adelai
as on the road and
in "Jenno".

Growing in low trees
foundation, & like a
large ceroado or a
low forest. It is tall.

and more than
the cedars. Most are
It is not a mate
cups either, ~~the~~
and so many trees
and not red tips.

Bromelias and big
cactus - probably a
transition forest between
the long cedars of
the lower parts and
the vegetat. of higher
altitudes.

Hiking: sandy soil
and no meltin
spic but very much
slope.

Very abundant, perched
thick clumps mixed
with trees and

scrubs, few herbaceous
plants seen, very dry
type of forest but
lot birds very happy and
green.

Large small bushes
up to 4.60 m high.
At forest the bushes
exhibit mostly the
full branched form
as a regular thicket
dry. Few clumps in
the other part of the
wood which still remain
a few old culms of
the unbranched type
the one used to make
plexus.

Bushes start bushy
pretty high, in fact

one resume at 1.60 mm.
bulbs fresh very green
and smooth all the
way, bright green
to dark green, no
marked mottling appears
over by a sort of wax
only been possibly
when cut with
shears, falling ~~as~~ like
tallow.

Diameters 0.8-1.4 mm
or less, solid, with
very thick, very dark
outer part and center
filled with dense
pink-white, soft, ~~soft~~
can be separated with
nail
but sheath ~~on~~

very smooth drying
very soon and falling
sober. Only few old
new culms, already
dry, light beige colored
and with sides open
Bulb broad lanceolate
perpendicular to sheath
or slightly reflexed or
slightly up. Only
on few terminal
ones it is ± erect.
One culm I wanted
being a sand, only
on top of edge
sheath very last, opaque
outside, bright marke
part of the culm
with all the bark
is often removed

with normal, small
leaves - bushy and stiff
in top ~~part~~^{leaf} upright
of leaves, with leaves
also very hard,
at least twice the
usual ones.
Node with most
prominent ridge
+ dark band on
node.

Bul upright.
Kentucky style, only
with stand to
which bush each
seems from the ones
on lower part of
crown with several
bracts. One + large
prophyll per all.

Nodes very close together
short internodes.
especially the top of
crown where internodes
are very short. ± 2-3
mm short.

Climbs ^{when full} densely
bushy ^{and} and
hanging over vegetation.
In some places large
mass about pile of
leaves - known as
the same point a
small palm, called
"coco de sargos".

Ichnomnthes bambusiflorus (Trin.)
Döll - det. M. T. Hieser.

May 12

2431

Pelotas? Ilheu

M. de Andrade, estrada
para Itaite, 11 Km S of
Andrade city

Alt. 500 m

In dense clumps in
w forest with *Tacca*-
rs *verticillata* as domi-
nant - In vermishale
holes under the bamboo
sheath and leaves
long rhizomes.

Large terminal flower
clusters. Plants up to
3 m tall -

no notes -

F.A.A.: 2 vials one flower
one leaf

Det. M.T. Hickey

May 12

2432

Flimstede bambusiflora (Trin.)
Mn. de Andarai, ^{Doele} estuário
para Itaité, 11 km S
of Andarai city

In dense cerrods or low
tree forest with
bamboos (*Tesuanas reti-*
cillata as dominant)
Under or mixed with
~~other~~ ~~eggs~~ in the same
bos and other plants
In remodeled forest
growing near the
silver fern. Is it the
same?

F.A.A. 1 red bear a
flower -

K, MO, NY, P, LE, B, F

2433

Bambusa (Guadua)

Municipio de Andarai -
~~estuário~~ para Itaité
km S of Andarai
city

Alt. 360 m.

A more or less well
path of Guadua
in some tall send
and by foot or
tel cerrods front
with sandy soil.
~~For~~ a lot broken

Form a + dense clu
with culm rather
close to each other

Get bulb up to 2.5cm
in diameter, with
thick walls.

Not ± flat or little
depressions on side of
main sheath.

Surface smooth,
green, with some
white patches or lumps
on new culm.

Culm sheath falling
very soon dry

Pale beige or yellow
with long, big, slate
triangular, obtusely
keeled in the st
reproductive. A line
or reproductive between
them, sometimes
blade fall first, (it's

a line of sinistri -
On thinner & culm
or higher up in
Knot 2 nodal
ridges marked -
On leaves just no.
Typical features with
base of leaves
branches full of
spikes, 3 per node
On lower $\frac{1}{3}$ leaves
are not developed
but only thick
hoods of fine
leaves narrow, not
rather small, section
on edge -
(Culm sheath very smooth
the main bush
per node at one

Thornless wattle shot, height
28 cm.

spine or刺 on
nodes -
On tipes branches
no spines -

They say this is one
of gobs unknown
but it is in more
open places not
far or within the
scrub

Photo. Bawend of
roll 57 & 58 (for 1 to
Ektachrome roll 59 - for 1 to
 $\frac{1}{2} \pm 17$.

FPA: 2 mls : leaves a
buds - [also pines
and ferns] -

2434

Austrobaileya longifolia Trim.

Alt. 360 m.

growing on dry sand
capped or base of
mountain, along
trail and rather
scattered places -

FPA: 1 ml with
leaves -
no photo -

May 13, 1976

2435

Morotobys

Mun. de Andarai, Serra do
Sincorá, ^{out}estada Micayé -
Itaeté, 27 Km from Andra-
rai.

Alt.: 800 m.

11.70

Borders start

1.70

2.

78 cm., 67, 62 cm. intern.
2.

diam. 1.5-2 cm.

Robert Mortality from
here, his claim about
with the trees of forest
border forest they being
high up. and stretching
over trees.

Diameter to measure on
full plant. 12-15 or +
m. high.

Internodes long - for
62 to 80 cm. - long
hollow but thick
walls.

Mature parts on
bark to mid part
surface smooth, shiny.

Mid culm and upper
parts of culms sparsely
spiny, "lips," on
upper part of inter-
node, from $\frac{1}{2}$ to
~~to~~ below the node.
Node without thickening
but the base of
sheath remains attached
to node

bark green, on upper
part of internode
reddish green, becoming
a little yellow at
full maturity or light
green.

And complement in
typical sheath fashion
for a very good
with many broken

in two or 3 rows.
In full developed
plant we count up
to 94 branches.
when developing the
ends are by several
short points at base
branches quite thick
but smooth thick
green and striate, by
being late, minute
whorl on lower
part gradually rise
the hairs white
they are thick walled
bright & inside
blonde broad bicostate
acute reflexed
falling when dry.

leaf complete quite
large - hairy, drooping
on sides, & basal
narrow size. base -
Broad runcinate
leaf curly, black
copper color. The
base on each
leaf - but longer -
Rusts are quite
more exact than
other Herbs. we
at least exact for
8 m or m - strip
dividing in & have foot
of transition type? On
lower slopes of mountain
near or + not far
from river, there are
the slopes of a wide valley

FAS: 2 mbs, 1 regnate
with soil, 1 leaves -
rhizome colored
perianth & calyx free,
living part colored
plots 5 x w. ± 10 of well
58 soil will 60 (1 to
(with flesh mostly)
Ektior - will 59 for 15 ±
to soil, with flesh
mostly -

MO, K, NY, P, M, S, F, LE, B,
G, W.

Actinocladum

May 13, 1976

2936

Tolarae *sericea* Cole

Mun. de Itaeté - Fazenda

Salubrim, on shoreline

Andarai - Itaeté - On

the slope of serre

de Bi Lencora -

(old estate 7 plots range no 30h

26 km SE of Andarai c 5

Alt. 600 m -

n. v. "fasciata"

Jurnal Nesteliano 20

Worrellia

F.A.S.: leaves 2 inches large & well; buds small - also linear leaves. (4 in.)
gerrardii, also new
rhyzome collected.

Living plant collected

Photos: B & W. well 60. ± lat
10 or 15 - and well ± 62
± 1 to 20 ft.

Biotobae Kohlmanni

well ± 61 (Tech #)

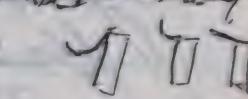
Very abundant, both
form, but in this
area specially the
low, sparse & form.
Form thick, large
clumps of short forms
mixed with many,
many new shoots
coming up from
the thick clumps.

New also mostly
short, some up to
2 m. (few) mostly
1 m. 1/20 ±

leaves - form not
very erect up to
1 m. or no more little
more.

Broad leaves beautiful
in large leaf couple-

not constricted
finely pointed down
The stalk of this
one thin but with
nodes & internodes
none of them
especially those below
the leaf complex.
short, broad. All
of these nodes look
bushy, very small
leaf thick, tufted
with a minute
with oral stalk -
color of leaves dark
blue green -
New culm covers
with the tiny, short
hanging culm sheaths
pushed away by the

overlapping buds.
Methane moist, the
glaucous, broad, in the
internodes with blade
broad triangular
horizontal to little
wavy or curvy descending
like *Atractanthes* 
blade extremely
divaricatus.
Most of the buds
spreading. Stems already
with small tufts
like a Kentucky.
In those P. or even in
very new culms
the top of culm with
a bunch of the leaf-
sheath of + large
leaves.

Beds start developing
from top to bottom
base of developing
beds, or beds cover
by thick, stiff sheets
about more than
say Montastry -

Upper bedded on
wreaths giving normal
small narrow bed.
Culms smooth, flattened
over by white wax
new beds when cut
below solid, thick
well filled with
soft to medium with
few new culms very
thick & hollow -
base of bed from (bursty)
with burned pieces

of culms. The new
ones going around
then fit back in
a slope, mostly
giving long stalks -
big break, some slots
giving small narrow
beds. (so far
late?) -

Near to the chain
or nearly regular
bipes and bands
~~cross~~ chain of
coral from old day.
Two 1 ft bands
or planks of
many stones -
This thres is in a
relatively more high
slope but at all

With 2nd growth.

Low trees and
shrubbs on open
places.

Actually this is low (bushy)
so palms are not
cubas but branches
growing erect and
slender pointed looking
like cubas. The
air cuba burn
and colored are
greening up. Late
the shrubs (not
bushy) will
have the thick new
cubas - In the case
of palms both are produced
~~for~~ the signature
by

KNOX, RAE, B.K., W. ISC, WRS.

May 15, 1976

2437

Fimbristylis virtus (Raddi) Rose
Mu. de Japaguara.
Br. 116. Km ^N de
Jequié, Mata Largo

In moist & cipo
transitional type of
forest between cativa
and humid uppe.
Not common in
dark places of
forest, at present
very few.
[Leaf ^{nodes} are not as densely pubescent
as on typical specimens]
Want of M. T. Hicks.

May 15

Prodoria

2438

Mu. de Japaguara,
rodoria Br. 116, 4 $\frac{1}{2}$ ⁺
Km N of Jequié

Very abundant in
lots & cipo; at
present very dry.
Dense transitional
forest at edge of
cativada region.
tall trees with many
manns or cipo will
big, terrestrial Prodoria
Flowers all over, but
not near the
beginning of forest. Very
big cipo inside, not

as abundant and not
prevailing.
Tall, the flowers for
80 cm or more
high. petal of flower
top with red -
white or less so
and bent at top
or $\frac{1}{3}$ up. σ in
parallel. No relation
apparently between
size of products and
of σ and age of
plant. From the
small young plant
and tall adult
the blossoms is
the forest condition
of the tree for the
kind of flower. Both

are abundant. Many
& open with stiff
out hairy smooth
petals - large, oval
smooth, glabrous &
looking so. Thick
bed of plant
many clumps with
wet mud, several
cm above ground
in disturbed soil
growing happily
looks like the
same type of plants.
FPA: inches of σ height
from base & root
big - 1 v. with whole
3:1 - σ ft. (4 vials)
tiny flat collected

Plot 6 x W. roll 62

1 ~~per~~ from 16 o 20 to
end and 64 per 1
to 16

Eltaco: roll # 63
(per 1 to 15 o 16)

May 16

2439

Bambusa (Guadua)

no?

Mun. Jequié, Km ~~12~~
East of Jequie city on road
to Ipirá.

Alt. ~~125~~ 125 to 175 m.

Very abundant on
good tall forest on
a slope of hill.

Mixed with very tall
trees. Rotan, large
bamboo, 20 m or
more.

Leaves erect for more
than 8 m; then
bend out slightly

with hardly
discretes 7-8 in or
more. Culm hollow
thick walls. Lvs with
green. Junc was by
white walls.

Nodal rige with
2 ridges, middle low
between them, (not
very prominent) or
extending the upper
ridge.

Culm sheath very
big, wide with
very short, triangular
sheath covering the
sheath. Sheath thick
tufted over by spine
dark hairs? falling
soon.

One main bud and
short x node,
or longer, 10-17, if
extending, broader over
by spine, 3 x node
Abaxial upright
1 thick broad spine
one broad & a neck
and side above one
spine or another
broad back one
with one spine on
each side -
leaf w/ plant
very big, with many
leaves, blades Olyro type
very large, broad base
bott. They roll up
very well after

within the bushes
White and rose -
Cover with mats
pink -
Bunches (1' or 2') rising
several miles west
trees, clumps, 5'
or more tall -
Very pretty. Sand
glowing in large
clusters, not very
dense, (I can walk
between the clumps)
New shoot going
out several feet
high.
Gardner collected
about "pegs"
FAS: 2 mds, one with
bulb and 1 with leaf

Plots: S, W. roll # 64
from 16 to end.
E. titosana roll # 63
from 15 or 16 to end.

May 16

2440

Fernantha *lanceolatus*
var. *weberbaueri* (Miq.) Sticks

Mon. Le Jezuie, Rn.
End of Jezuie city or
road to Vpiani

Alt. 175 m.

Rhododendron mixed forest
in dark forest - tall
trees and huge shrubs
forest - Hand type
of forest.

Hanging dense cover
of all red pure Rhod.
No one with flowers
or per. least inf.
F.A. leaves - no petals

JBGE

Ar. lingularis 722

2° side 6654

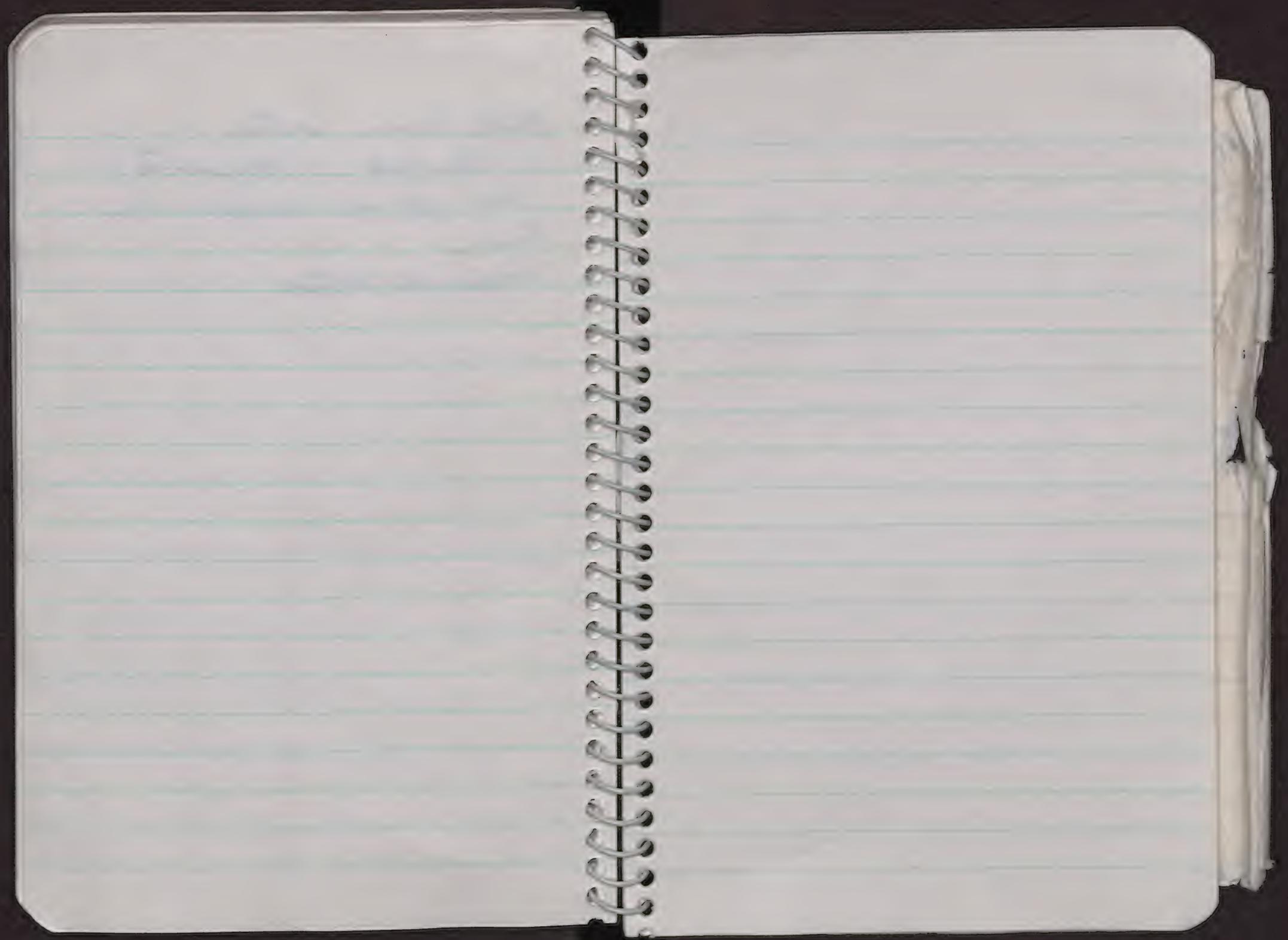
Met from station:

Anípaz (Arpañá)

Set MG and Anípaz river

Pará -

Biological station



A pelote was thrown
49' by Sam Potts

The snake
top 14 has not yet
been collected.

14

~~La mejor forma de tratar la
osteoporosis es con terapias
de reposo y ejercicio. El reposo
impide que las hormonas
que desregulan el equilibrio óseo
sean más abundantes. El ejercicio
estimula la actividad ósea.
Se recomienda una
terapia especialista en~~

Dr.
Tomlinson

Fairchild Botanical Garden

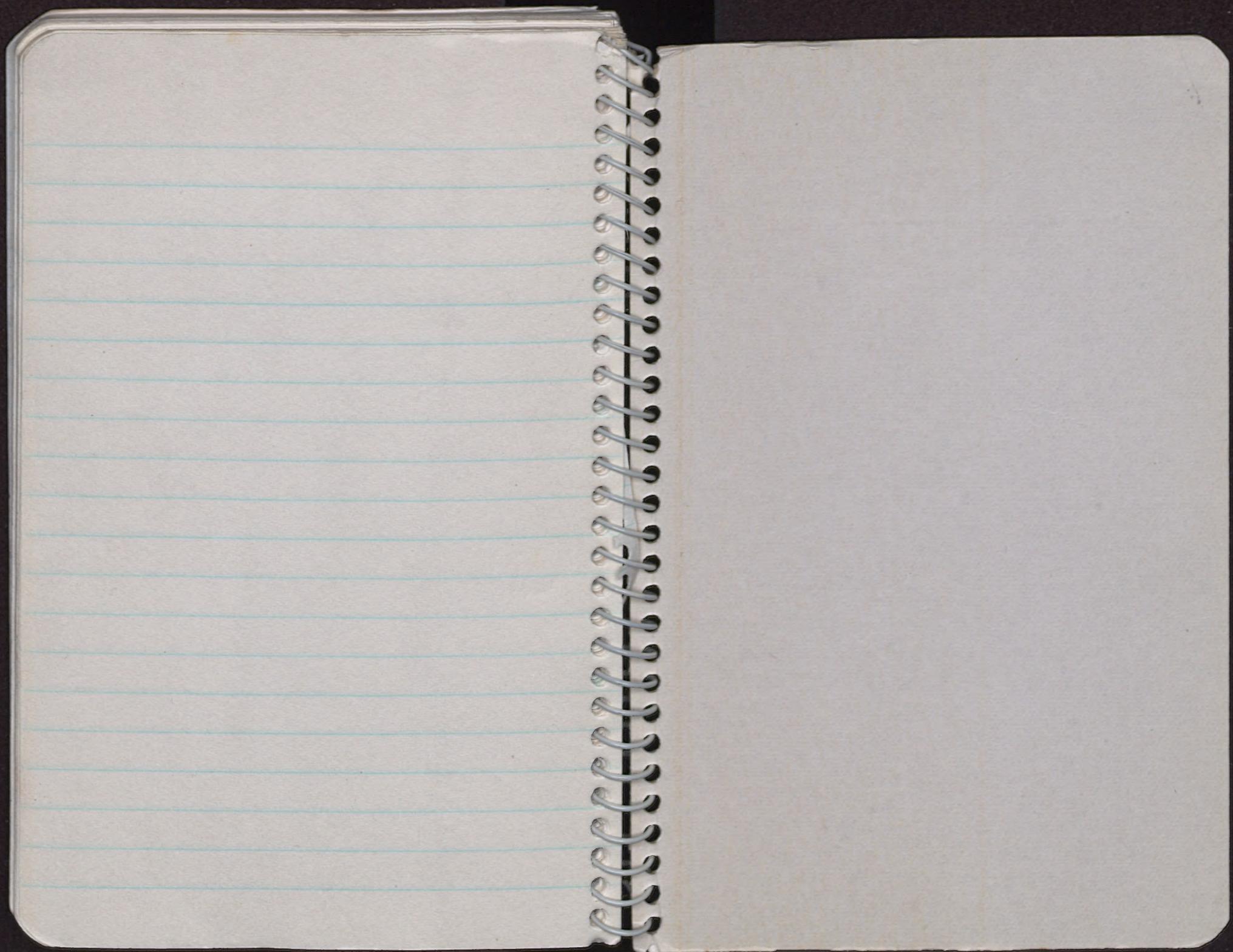
Old Cutler Road
Miami Florida.

Estamos interesados nos informe sobre la anato morfología de la raiz de las palmaceas, específicamente si presenta pelos radicalis, para la absorción de Agua y mineralis; en caso negativo que portes, y como ~~la~~ la raiz cumplez esta función.

Esta información la solicitamos estudiantes de Agronomía ~~maior~~ ^{de Palma} de la facultad de Ciencias Agropecuarias ^{de Palma} de la Universidad Nacional de Colombia Sur America que adelantamos estudio sobre la palma de Chontaduro Bactris gasipaes H.B.K. y por referencia del Dr Richard Pohl. Esperamos establecer con su bondencia con ~~el~~ ~~el~~ por ser especialista universitario internacional.

cordialmente. Tania Paola
Eduardo castillo.
Gabriel de la Cruz.
Alvaro González.

P.D. c/f. informacion favor enviarla al apartado numero 443 de la ciudad de Palmira (Valle), Colombia Sur America.



JNPA

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MADE IN JAPAN